



**Air Quality  
TIER II OPERATING PERMIT  
and  
PERMIT TO CONSTRUCT**

**State of Idaho  
Department of Environmental Quality**

**PERMIT No.:** T2-040102  
**FACILITY ID No.:** 017-00048  
**AQCR:** 63                      **CLASS:** SM  
**SIC:** 3273                      **ZONE:** 11  
**UTM COORDINATE (km):** 532.6, 5348.1

**1. PERMITTEE**

Interstate Concrete and Asphalt Company

**2. PROJECT**

Hot mix asphalt plant, renew Tier II operation permit and add spec-oil as fuel source

**3. MAILING ADDRESS**

845 W. Kathleen St.

**CITY**

Coeur d'Alene

**STATE**

ID

**ZIP**

83815

**4. FACILITY CONTACT**

Corky Witherwax

**TITLE**

Environmental Manager

**TELEPHONE**

(208) 765-1144

**5. RESPONSIBLE OFFICIAL**

C. Patrick McFarlane

**TITLE**

President

**TELEPHONE**

(208) 765-1144

**6. EXACT PLANT LOCATION**

0.25 miles west of Boyer Road on north side of Baldy Rd.

**COUNTY**

Bonner

**7. GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS**

Asphalt plant, aggregate handling, and batch concrete plant

**8. PERMIT AUTHORITY**

This permit is issued according to the *Rules for the Control of Air Pollution in Idaho*, IDAPA 58.01.01.400, and pertains only to emissions of air contaminants regulated by the state of Idaho and to the sources specifically allowed to be operated by this permit.

The permit to construct conditions (identified in the permit) are not subject to the expiration date of this permit. The remaining terms and conditions are Tier II requirements and are subject to the expiration date of this permit.

The permit to construct conditions in this permit will expire if construction has not begun within two years of its issue date or if construction is suspended for one year.

This permit has been granted on the basis of design information presented in the application and the Idaho Department of Environmental Quality's (DEQ) technical analysis of the supplied information. Changes in design or equipment that result in any change in the nature or amount of emissions may be considered a modification. Modifications are subject to DEQ review in accordance with Section 58.01.01.200 of the *Rules for the Control of Air Pollution in Idaho*.

\_\_\_\_\_  
**TONI HARDESTY, DIRECTOR**  
**DEPARTMENT OF ENVIRONMENTAL QUALITY**

**DATE ISSUED:** Proposed

**DATE EXPIRES:** \_\_\_\_\_

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## Acronyms, Units, and Chemical Nomenclatures

AQCR	Air Quality Control Region
ASTM	American Society for Testing and Materials
Btu/hr	British thermal unit per hour
CFR	Code of Federal Regulations
DEQ	Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
gr/dscf	grains (1 lb = 7,000 grains) per dry standard cubic foot
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometer
lb/hr	pound per hour
MMBtu/hr	million British thermal units per hour
NO <sub>x</sub>	nitrogen oxides
NSPS	New Source Performance Standards
PM	particulate matter
PM <sub>10</sub>	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PTC	permit to construct
O&M	operation and maintenance manual
SIC	Standard Industrial Classification
SM	synthetic minor
T/yr	tons per year
UTM	Universal Transverse Mercator

# AIR QUALITY TIER II OPERATING PERMIT AND PERMIT TO CONSTRUCT NUMBER: T2-040102

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<b>Location:</b>	Sandpoint, Idaho		<b>Date Expires:</b>	

## 1. PERMIT SCOPE

### *Purpose*

- 1.1 The purpose of this Tier II operating permit and permit to construct is to allow the use of spec-oil (used oil and fuel oil) and to renew Tier II Operating Permit No. 017-00048, issued August 2, 1999. The original Tier II operating permit, No. 017-00048, issued August 2, 1999, was issued as a requirement in the development of the Sandpoint Area PM<sub>10</sub> Attainment Plan.
- 1.2 Tier II Operating Permit No. 017-00048, issued August 2, 1999, is no longer effective as of the issuance date of this permit:

### *Regulated Sources*

- 1.3 Table 1.1 lists all sources of regulated emissions in this permit.

**Table 1.1 SUMMARY OF REGULATED SOURCES**

Permit Section	Source Description	Emissions Control(s)
3	<u>Drum Dryer</u> Manufacturer: Barber Greene DA-65 Rated heat capacity: 36 MMBtu/hr Production capacity: 200 tons/hr Fuels: natural gas, used oil, fuel oil	<u>Baghouse</u> Manufacturer: AESCO Model 420
4	<u>Concrete batch plant</u> Includes two cement silo bin vents	<u>Cement silo mini baghouse</u> For Silo No. 1 Manufacturer: Besser Appco DSC-250 Efficiency: 99.9%  <u>Cement silo mini baghouse</u> For Silo No. 2 Manufacturer: Besser Appco DSC-260 Efficiency: 99.9%
3, 4, & 5	<u>Fugitive emission sources</u> Vehicle fugitives (paved and unpaved) Process fugitives	Reasonable control (Permit Condition 2.1) Engineered drop point enclosures Baghouses ESCDs dust control Fugitive Dust Control Plan, May 2, 1995 Paved road sweep and water spray

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**2. FACILITY-WIDE CONDITIONS*****Fugitive Emissions***

- 2.1 All reasonable precautions shall be taken to prevent PM from becoming airborne in accordance with IDAPA 58.01.01.650-651. In determining what is reasonable, considerations will be given to factors such as the proximity of dust-emitting operations to human habitations and/or activities and atmospheric conditions that might affect the movement of particulate matter. Some of the reasonable precautions include, but are not limited to, the following:
- Use, where practical, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of lands.
  - Application, where practical, of asphalt, oil, water, or suitable chemicals to, or covering of, dirt roads, material stockpiles, and other surfaces which can create dust.
  - Installation and use, where practical, of hoods, fans, and fabric filters or equivalent systems to enclose and vent the handling of dusty materials. Adequate containment methods should be employed during sandblasting or other operations.
  - Covering, where practical, of open-bodied trucks transporting materials likely to give rise to airborne dusts.
  - Paving of roadways and their maintenance in a clean condition, where practical.
  - Prompt removal of earth or other stored material from streets, where practical.
- 2.2 The permittee shall monitor and maintain records of the frequency and the method(s) used (i.e., water, chemical dust suppressants, etc.) to reasonably control fugitive emissions.
- 2.3 The permittee shall maintain records of all fugitive dust complaints received. The permittee shall take appropriate corrective action as expeditiously as practicable after receipt of a valid complaint. The records shall include, at a minimum, the date that each complaint was received and a description of the following: the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.
- 2.4 The permittee shall conduct a quarterly facility-wide inspection of potential sources of fugitive emissions, during daylight hours and under normal operating conditions to ensure that the methods used to reasonably control fugitive emissions are effective. If fugitive emissions are not being reasonably controlled, the permittee shall take corrective action as expeditiously as practicable. The permittee shall maintain records of the results of each fugitive emissions inspection. The records shall include, at a minimum, the date of each inspection and a description of the following: the permittee's assessment of the conditions existing at the time fugitive emissions were present (If observed), any corrective action taken in response to the fugitive emissions, and the date the corrective action was taken.

***Odors***

- 2.5 No person shall allow, suffer, cause, or permit the emission of odorous gases, liquids, or solids to the atmosphere in such quantities as to cause air pollution.

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- 2.6 The permittee shall maintain records of all odor complaints received. If the complaint has merit, the permittee shall take appropriate corrective action as expeditiously as practicable. The records shall include, at a minimum, the date that each complaint was received and a description of the following: the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.

**Visible Emissions**

- 2.7 The permittee shall not discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity as determined by procedures contained in IDAPA 58.01.01.625. These provisions shall not apply when the presence of uncombined water, NO<sub>x</sub>, and/or chlorine gas is the only reason for the failure of the emission to comply with the requirements of this section.
- 2.8 The permittee shall conduct a quarterly facility-wide inspection of potential sources of visible emissions, during daylight hours and under normal operating conditions. The visible emissions inspection shall consist of a see/no see evaluation for each potential source. If any visible emissions are present from any point of emission, the permittee shall either take appropriate corrective action as expeditiously as practicable, or perform a Method 9 opacity test in accordance with the procedures outlined in IDAPA 58.01.01.625. A minimum of 30 observations shall be recorded when conducting the opacity test. If opacity is greater than 20% for a period or periods aggregating more than three minutes in any 60-minute period, the permittee shall take all necessary corrective action and report the exceedance in accordance with IDAPA 58.01.01.130-136. The permittee shall maintain records of the results of each visible emissions inspection and each opacity test when conducted. The records shall include, at a minimum, the date and results of each inspection and test and a description of the following: the permittee's assessment of the conditions existing at the time visible emissions are present (if observed), any corrective action taken in response to the visible emissions, and the date corrective action was taken.

**Excess Emissions**

- 2.9 The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130-136 for excess emissions due to startup, shutdown, scheduled maintenance, safety measures, upsets and breakdowns.

**Open Burning**

- 2.10 The permittee shall comply with the requirements of the *Rules for Control of Open Burning*, IDAPA 58.01.01.600-617.

**Performance Testing**

- 2.11 If performance testing (air emissions source test) is required by this permit, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test date or shorter time period as approved by DEQ. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests that such testing not be performed on weekends or state holidays.

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All performance testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. Without prior DEQ approval, any alternative testing is conducted solely at the permittee's risk. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the testing does not satisfy the testing requirements. Therefore, at least 30 days prior to conducting any performance test, the permittee is encouraged to submit a performance test protocol to DEQ for approval. The written protocol shall include a description of the test method(s) to be used, an explanation of any or unusual circumstances regarding the proposed test, and the proposed test schedule for conducting and reporting the test.

Within 30 days following the date in which a performance test required by this permit is concluded, the permittee shall submit to DEQ a performance test report. The written report shall include a description of the process, identification of the test method(s) used, equipment used, all process operating data collected during the test period, and test results, as well as raw test data and associated documentation, including any approved test protocol.

### ***Monitoring and Recordkeeping***

- 2.12 The permittee shall maintain sufficient records to ensure compliance with all of the terms and conditions of this operating permit. Records of monitoring information shall include, but not be limited to the following: (a) the date, place, and times of sampling or measurements; (b) the date analyses were performed; (c) the company or entity that performed the analyses; (d) the analytical techniques or methods used; (e) the results of such analyses; and (f) the operating conditions existing at the time of sampling or measurement. All monitoring records and support information shall be retained for a period of at least five years (beginning two years prior to the issuance of Permit No. T2-040102) from the date of the monitoring sample, measurement, report, or application. Supporting information includes, but is not limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation and copies of all reports required by this permit. All records required to be maintained by this permit shall be made available in either hard copy or electronic format to DEQ representatives upon request.

### ***Reports and Certifications***

- 2.13 Any reporting required by this permit, including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, notifications of intent to test, testing reports, or compliance certifications, shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete. Any reporting required by this permit, with the exception of a Portable Equipment Registration and Relocation form, shall be submitted to the following address:

Air Quality Permit Compliance  
Department of Environmental Quality  
Coeur d'Alene Regional Office  
2110 Ironwood Parkway  
Coeur d'Alene, ID 83814  
Phone: (208) 769-1422

Fax: (208) 769-1404

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***Obligation to Comply***

- 2.14 Receiving this permit shall not relieve any owner or operator of the responsibility to comply with all applicable local, state, and federal rules and regulations.

***Fuel-burning Equipment***

- 2.15 The permittee shall not discharge to the atmosphere from any fuel-burning equipment PM in excess of 0.050 gr/dscf of effluent gas corrected to 3% oxygen by volume for liquid fuel.

***Sulfur Content***

- 2.16 No person shall sell, distribute, use, or make available for use any distillate fuel oil containing more than the following percentages of sulfur:
- ASTM Grade 1 fuel oil - 0.3% by weight.
  - ASTM Grade 2 fuel oil - 0.5% by weight.
- 2.17 The permittee shall maintain documentation of supplier verification of distillate fuel oil content on an as-received basis.



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### 3. HOT MIX ASPHALT PLANT

#### 3.1 Process Description

Haul trucks bring crushed aggregate and sand on site where it is dumped into storage piles. A front-end loader transfers aggregate and sand, as needed, to a four-bin cold feed hopper. Metered quantities of aggregate are fed from the hopper onto a conveyor. The conveyor passes the aggregate through a screen and delivers the aggregate to a natural gas-fired rotating drum dryer. In the drum dryer the aggregate is heated to approximately 300°F, is transported by a bucket conveyor to a size segregating screen and stored shortly before being reportioned in a weigh hopper prior to transfer into a pug-mill mixer. In the pug-mill mixer the aggregate is thoroughly mixed with asphalt oil before either being dropped onto a drag slat conveyor for transport into storage silos, or into haul trucks.

Asphalt oil is delivered to the facility by bulk tankers. The tankers transport the asphalt oil to one of the storage tanks. The asphalt plant also loads raw aggregate into haul trucks from a front-end loader.

#### 3.2 Emission Control Description

Emissions from the drum dryer, hot storage bin, weigh scale and pug mill mixer are controlled by a baghouse. Reclaimed baghouse dust is combined with dried aggregate in the bucket conveyor.

##### 3.2.1 Enclosing of Drop Points for Conditional Control Measures

Engineered enclosures shall be around the three material drop points in the asphalt plant's configuration.

**Table 3.1 HOT MIX ASPHALT PLANT DESCRIPTION**

<b>Emissions Unit(s) / Process(es)</b>	<b>Emissions Control Device</b>
Drum dryer, hot storage bin, weigh scale, and pug mill mixer	Baghouse
Material drop points	Engineered enclosures

#### 3.3 Equipment Specifications

##### 3.3.1 Barber Greene (1957) DA-65 natural gas fired drum dryer.

- Rated heat capacity is 36,000,000 British Thermal Units per hour (BTU/hr). Permitted production capacity is 200 tons per hour (T/hr). Permitted production capacity is allowed upon the continued use and maintenance of all Conditional Control Measures identified in Permit Condition 3.2.1 and continued successful demonstration of compliance with the applicable New Source Performance Standard (NSPS) Subpart I grain loading standard of 0.04 grains per dry standard cubic foot (gr/dscf) and the PM and PM<sub>10</sub> emission limits contained in Appendix A.

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**3.3.2 AESCO Model 420 Baghouse**

- Baghouse configuration: 360 NOMEX bags (15 X 24); each bag is six inches in diameter and 180 inches long.
- Performance design characteristics: air to clothe ratio of 5.1 and pressure drop of 3.5 inches water gauge.
- Stack parameters: Stack height is 11.0 meters. Stack is rectangular.

**Emissions Limits****3.4 Emission Limits**

- 3.4.1 Particulate matter (PM) emissions shall not exceed 0.04 grains per dry standard cubic foot as required in 40 CFR Part 60, Subpart I; nor shall they exceed any corresponding emissions rate limit listed in Table 3.2.

**Table 3.2 ASPHALT PLANT EMISSIONS LIMITS**

Source Description	PM <sup>a</sup>		PM <sub>10</sub> <sup>a</sup>	
	lb/hr	T/yr	lb/hr	T/yr
Drum Dryer	5.8	2.0	2.3	0.81
Vehicle Fugitives (Paved and Unpaved)			0.71	0.30
Process Fugitives			0.26	0.58

<sup>a</sup>. Includes condensibles

- 3.4.2 Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM<sub>10</sub>) shall not exceed the pound per hour (lb/hr) and ton per year (T/yr) values listed in Table 3.2 or in Table 6.1.
- 3.4.3 Visible emissions from the drum dryer baghouse stack shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period as required by IDAPA 58.01.01.625.

**Operating Requirements****3.5 Dryer Burner Fuel**

The fuel supplied to the drum dryer shall be natural gas, liquefied petroleum gas (propane), ASTM Grade 1 fuel oil, ASTM Grade 2 fuel oil, or used oil. Any used oil supplied to the drum dryer shall meet the specifications in 40 CFR 279.11, with the exception of total halogens, as provided in Permit Condition 3.9. Total halogens are limited to 1,000 ppm.

**[PTC Condition]****3.6 ASTM Number 1 Fuel Sulfur Content Limit**

No ASTM number 1 fuel containing sulfur in excess of 0.3% by weight shall be burned in the drum dryer.

**[PTC Condition]**

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**3.7 ASTM Number 2 Fuel Sulfur Content Limit**

No ASTM number 2 fuel containing sulfur in excess of 0.5% by weight shall be burned in the drum dryer.

[PTC Condition]

**3.8 Used Oil Fuel Sulfur Content Limit**

No used oil fuel containing sulfur in excess of 0.5% by weight shall be burned in the drum dryer.

[PTC Condition]

**3.9 Used Oil Specifications**

In accordance with 40 CFR 279.11, with the exception of total halogens which are limited to 1,000 ppm, used oil burned for energy recovery shall not exceed any of the allowable levels of the constituents and properties listed in Table 3.3.

**TABLE 3.3 USED OIL SPECIFICATIONS<sup>1</sup>**

<b>Constituent/property</b>	<b>Allowable level</b>
Arsenic	5 ppm <sup>2</sup> maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Flash point	100 deg. F minimum
Total halogens	1,000 ppm maximum

<sup>1</sup> The specification does not apply to mixtures of used oil and hazardous waste that continue to be regulated as hazardous waste (see 40 CFR 279.10(b)).

<sup>2</sup> Parts per million

[PTC Condition]

**3.10 Maximum Throughput**

The maximum throughput shall be limited to the ton per hour (T/hr), ton per day (T/day), and ton per year (T/yr) limitations in Appendix B.

**3.11 Air Pollution Control Equipment**

The baghouse shall be operated at all times during the operation of the drum dryer.

[PTC Condition]

**3.12 Monitoring Equipment**

The permittee shall install, calibrate, maintain, and operate, in accordance with manufacturer's specifications, equipment to continuously measure the pressure differential across the baghouse.

[PTC Condition]

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**3.13     Operations and Maintenance Manual Requirements**

Within 60 days after startup, the permittee shall have developed an operations and maintenance (O&M) manual for the baghouse. The O&M manual shall describe the procedures that will be followed to comply with General Provision 2 and the baghouse operating requirements contained in this permit. The manual shall remain on site at all times and shall be available to DEQ representatives upon request.

[PTC Condition]

**3.14     Pressure Drop Across Air Pollution Control Device**

The pressure drop across the baghouse shall be maintained within the manufacturer's and O&M manual's specifications. Documentation of both the manufacturer's and O&M manual's operating pressure drop specifications shall remain on site at all times and shall be available to DEQ representatives upon request.

[PTC Condition]

***Monitoring and Recordkeeping Requirements*****3.15     Operating Parameters Monitoring**

The following information shall be recorded and maintained on site for the most recent five year period beginning two years prior to the issuance of Permit No. T2-040102. Access to these records shall be granted to DEQ representatives upon request.

- 3.15.1 Amount (tons per hour, tons per day, and tons per year) of hot mix asphalt produced by the facility to demonstrate compliance with Permit Condition 3.10. Annual production shall be determined by summing daily production monthly, and summing monthly production over the previous consecutive 12-month period.

[PTC Condition]

- 3.15.2 Amount (standard cubic feet per day) of natural gas burned in the Barber Greene drum dryer.

- 3.15.3 The pressure drop across the baghouse once per day when the hot-mix asphalt plant is operating to demonstrate compliance with Permit Condition 3.14.

[PTC Condition]

**3.16     Performance Tests**

- 3.16.1 Within 60 days after achieving the maximum production rate at which the affected facility will operate but not later than 180 days after initial start up of the source, a performance test shall be conducted on the hot-mix asphalt plant in accordance with 40 CFR 60.93 and IDAPA 58.01.01.157. The performance test shall be conducted to demonstrate compliance with the applicable PM standards defined in 40 CFR 60.92. The following shall be monitored and recorded during the performance tests:

- The hourly production rate of the hot-mix asphalt plant expressed as tons per hour
- The pressure drop across the baghouse
- The visible emissions observed during the performance tests

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- Operating variables used to demonstrate worst-case normal operating conditions

3.16.2 The permittee shall conduct performance tests at a frequency of no less than once every year to demonstrate compliance with both the 0.04 grains per dry standard cubic foot (gr/dscf), the 20% opacity NSPS emission limits for Hot Mix Asphalt Plants, and the hourly PM and PM<sub>10</sub> emission limits in Table 3.2. The permittee may show compliance with the hourly emission limit PM<sub>10</sub> by conducting a performance test to measure Total Suspended Particulate (TSP) emissions from the Drum Dryer baghouse using EPA Reference Method 5 and 202 back half catch analysis. The resulting pound per hour (lb/hr) emission rate demonstrated by the source test shall be multiplied by a factor of 0.40 to establish the hourly PM<sub>10</sub> emission rate. The permittee shall have the option of performing a Method 201 or 201A performance test with Method 202 Analysis on the drum dryer baghouse stack. Visible emissions shall be observed during this test using the methods in IDAPA 58.01.01.625.

**3.17 Used Oil Fuel Certification**

The permittee shall demonstrate compliance with the used oil fuel specifications in Permit Condition 3.9 by obtaining a used oil fuel certification from the used oil fuel supplier on an as-received basis. The certification shall include the following information:

- The name and address of the used oil supplier
- The measured concentration, expressed as ppm, of each constituent listed in Table 3.3
- The flash point of the used oil expressed as degrees Fahrenheit
- The analytical method or methods used to determine the concentration of each constituent and property (flash point) listed in Table 3.3
- The date and location of each sample
- The date of each certification analysis

Records of each certification shall remain on site for the most recent five-year period and shall be made available to DEQ representatives upon request.

**[PTC Condition]**

**3.18 Fuel Oil Sulfur Content Limits Monitoring**

The permittee shall demonstrate compliance with the fuel oil sulfur content limits specified in Permit Conditions 3.6, 3.7, and 3.8 by obtaining documentation of the sulfur content analysis for each shipment of fuel oil (ASTM Grade 1, ASTM Grade 2, and used oil) on an as-received basis. Records of each fuel oil sulfur content analysis shall remain onsite for the most recent five-year period and shall be made available to DEQ representatives upon request.

**[PTC Condition]**

***Reporting Requirements*****3.19 Relocation of Portable Source**

At least 10 days prior to the relocation of any portable equipment covered by this permit, the permittee shall report to DEQ, on relocation forms supplied by DEQ, information pertaining to:

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- When start-up will occur, and how long operations will last.
- Location of new operations.
- All equipment to be used at the new location.

**3.20 Conditional Control Measure Reporting**

The permittee shall provide notice to the DEQ within 10 days of making any changes to the engineering enclosures as described in Section 3.2.1 of this permit.

**3.21 Performance Test Protocol**

The permittee shall submit a test protocol for the performance tests required in Permit Condition 3.16 to DEQ for approval at least 30 days prior to the test day.

**[PTC Condition]**

**3.22 Performance Test Report**

The permittee shall submit a report of the results of the performance tests required in Permit Condition 3.16, including all required process data, to DEQ within 30 days after the date on which the testing is concluded.

**[PTC Condition]**

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#### **4. CONCRETE BATCH PLANT**

##### **4.1 Process Description**

Equipment at the concrete batch plant includes the batch unit with cement and aggregate weigh hoppers and load-out conveyor belt, three cement silos (one of which is equipped with a weigh hopper), and elevated aggregate storage bins with charging hopper and conveyor.

Washed rock and sand are derived from off-site source(s) and are transported onto the facility by haul trucks. The sand and aggregate are dumped in the storage pile area shared by the asphalt batch plant. A front-end loader then transfers the aggregate to the charging hopper as needed. From the charging hopper, the aggregate is transported at a rate of 200 tons per hour (T/hr) by a conveyor to the elevated storage bins. The aggregate travels along a conveyor to a weigh hopper where it is transferred directly to a mixer truck in the desired proportions. Raw cement is batched in either of two locations: in the first case, it is discharged directly onto the aggregate conveyor, and in the second case, it is transferred directly to the mixer truck. Water is added at the common aggregate/cement entry point simultaneously. Aggregate and approximately two-thirds of the water are added to the mixer prior to introduction of cement. The last portion of water is added after all other ingredients have been mixed. The mixer truck blends the mixture and transports the concrete off-site.

Cement is delivered by bulk tanker truck, which pneumatically conveys the cement to one of two storage silos.

The concrete batch plant provides aggregate for delivery off-site. A front-end loader either transfers the aggregate directly to the haul trucks or to the pea gravel hopper (PG Hopper), which in turn drops the aggregate into haul trucks.

##### **4.2 Emission Control Description**

###### **4.2.1 Cement Storage Silos**

Particulate emissions from the two cement silo bin vents are controlled by two dedicated mini baghouses. Bags are cleaned by motor driven shaker. Baghouse cement dust reclaimed by the shaker is returned to the storage bin.

###### **4.2.2 Conveyors**

The following material drop points for the concrete batch plant operation are equipped with a partial enclosure: Charging hopper to conveyor (aggregate) and elevated silo to weigh hopper (aggregate).

The following material drop point for the concrete batch plant operation is equipped with no enclosure: conveyor to silo.

###### **4.2.2.1 Enclosing of Drop Points for Conditional Control Measures**

Engineered enclosures shall be around the three material drop points in the concrete batch plant's configuration. The pea gravel hopper (PG Hopper) loadout operation shall be controlled by an engineered enclosure.

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**4.2.2.2 Operation of Scavenge Air and Baghouse System for Mixer Truck Loading Conditional Control Measures**

The permittee shall operate an effective scavenge air and baghouse emission control system to control fugitive emissions from the transfer of aggregate and cement from the weigh hopper to the mixer truck.

**Table 4.1 CONCRETE BATCH PLANT DESCRIPTION**

<b>Emissions Unit(s) / Process(es)</b>	<b>Emissions Control Device</b>
Cement storage silos	Two mini-baghouses
Charging hopper to conveyor Elevated silo to weigh hopper	Partial enclosures
Three material drop points Pea gravel hopper loadout	Engineered enclosures

**4.3 Equipment Specifications****4.3.1 Cement Silo Baghouses**

- Silo No. 1 is approximately 20 meters high and is served by a Besser Appco DSC-250 Dust Collector (Minibaghouse). The Baghouse is equipped with 42 bags; each bag is four inches in diameter and 36 inches long. The vent diameter is 0.25 meters.
- Silo No. 2 is approximately 13 meters high and is served by a Besser Appco DSC-260 Dust Collector (Minibaghouse). The baghouse is equipped with 42 bags; each bag is 4 1/2 inches in diameter and 67 inches long. The vent diameter is 0.25 meters.
- Performance design characteristics: 99.9% efficiency for Portland Cement emission control for both baghouses.
- Stack parameters: Elevation of Silo No.2 vent is approximately 20 meters high. Elevation of Silo No. 3 vent is approximately 10 meters high. Vent diameter of both silo vents is 0.25 meters.

**4.3.2 Overhead Bins****4.3.2.1 Manufacturer: SPOMAC****4.3.2.2 Design Capacity: Overhead (elevated) bins have a storage capacity of 280 tons.**

Process-limiting capacity: Conveyor that feeds the overhead bins limits production rate to 200 tons per hour aggregate.

***Emission Limits*****4.4 Emission Limits**

Particulate matter and particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM<sub>10</sub>) emissions shall not exceed the pound per hour (lb/hr) and ton per year (T/yr) values listed in Table 4.2 and Table 6.1.



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**Table 4.2 CONCRETE BATCH PLANT EMISSIONS LIMITS**

Source Description	PM <sup>a</sup>		PM <sub>10</sub> <sup>a</sup>	
	lb/hr	T/yr	lb/hr	T/yr
Cement Silo Vents	0.08	0.04	0.08	0.04
Process Fugitives	3.07	2.51	0.63	1.1
Vehicle Fugitives (Paved and Unpaved)	3.32	1.45	0.89	0.34

<sup>a</sup> Includes condensibles

- 4.4.1 Visible emissions shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60 minute period as required by IDAPA 58.01.01.625.

***Operating Requirements*****4.5 Maximum Throughput**

- 4.5.1 Process throughput of materials for the operation of the concrete batch plant shall be limited to quantities specified in Appendix B.

***Monitoring and Recordkeeping Requirements*****4.6 Throughput Log**

The following information shall be recorded weekly and maintained on site for the most recent five year period beginning two years prior to the issuance of Permit No. T2-040102.

- 4.6.1 Amount in cubic yards per day (yd<sup>3</sup>/day) of concrete hauled off-site from the facility.
- 4.6.2 Amount in tons per day (T/day) of raw aggregate hauled out of the facility.

***Reporting Requirements*****4.7 Throughput Log**

Access to these records shall be granted to DEQ representatives upon request.

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**5. SPECIFIC REQUIREMENTS FOR FUGITIVE EMISSION SOURCES REQUIRED BY THE SANDPOINT SIP****5.1 Process Description**

This section of the permit includes fugitive emission sources. Sources of fugitive emissions include vehicle traffic on paved and unpaved roads, aggregate handling, and stockpile erosion. Various sized aggregates are delivered by truck to the stockpile area. Conveyors deliver sized aggregate to three overhead bins at the top of the concrete plant. Related to asphalt production, a front-end loader transfers aggregate as needed to a four-bin cold feed hopper. Metered quantities of aggregate are fed from the hopper onto two open conveyors in series and delivered to a natural gas-fired drum dryer. Stockpiled sand and gravel are then loaded out into vehicles of various configuration either from the PG Hopper or a front-end loader. Several of these sources have been discussed in previous sections.

***Emissions Limits*****5.2 Fugitive Emissions**

At all times, fugitive emissions shall be reasonably controlled by the following methods, but not limited to the following methods, as required in IDAPA 58.01.01.650 and 808.

5.2.1 All unpaved haul roads and front-end loader travel areas shall be treated with an environmentally safe chemical dust suppressant (ESCDS) as needed. The ESCDS shall be applied in sufficient quantities and frequency so as to provide reasonable control of fugitive dust from the unpaved haul roads and front-end loader travel areas. Water shall be applied to the unpaved traffic areas following the ESCDS applications in the amounts and frequency necessary to control fugitive dust emissions.

**5.2.2 Vehicle Traffic Emissions Control for Conditional Control Measures**

The permittee shall maintain fugitive PM<sub>10</sub> control strategies according to the methods submitted to DEQ in the following document: "Fugitive Dust Control Plan", Interstate Concrete & Asphalt Company, Sandpoint, Idaho, June 25, 1998.

***Operating Requirements*****5.3 Conditional Control Measures for Vehicle Traffic**

The permittee shall maintain the control measures on unpaved roads and areas and sweep (water flushing as necessary) all paved roads at least weekly.

The permittee shall maintain the pavement on the access roads and scale area.

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***Monitoring and Recordkeeping Requirements*****5.4 Monitoring Requirements****5.4.1 Chemical Dust Suppressant Application Plan**

5.4.1.1 The permittee shall develop and keep current a Chemical Dust Suppressant Application Plan (CDSAP).

- Brand name and chemical composition of the ESCDS selected for use.
- Dilution ratio (volume of water: volume of ESCDS) to be used in the formation of each ESCDS solution ready for direct application.
- Application intensity, in gallons per square yard (gal/yd<sup>2</sup>), of the ESCDS solution for each projected treatment date.
- Facility plot plan illustrating the proposed treatment areas.

**5.4.1.2 ESCDs Application Log**

The permittee shall record the following information each time the ESCDS is applied:

- Brand name and chemical composition of the ESCDS used.
- Dilution ratio (volume of water: volume of ESCDS) used to form the ESCDS solution ready for direct application.
- Date of ESCDS solution application.
- Application intensity (gal/yd<sup>2</sup>) of the ESCDS solution.
- Facility plot plan illustrating the treated areas.
- Name of the firm and of the operator responsible for the ESCDS solution application. The operator shall initial these required records to verify their accuracy.

**5.4.1.2 Paved Road Control Measures Log**

The permittee shall record in a log the following information:

- The date the paved traffic areas are swept (or broomed).
- The date the paved traffic areas are flushed with water.
- Name of the firm and of the operator responsible for the housekeeping activities listed in Permit Condition 5.4.1.2.

***Reporting Requirements*****5.5 Chemical Dust Suppressant Application Plan**

5.5.1 A copy of the CDSAP shall be made available to DEQ representatives upon request.

5.5.2 The permittee shall notify the DEQ in writing of any changes in an existing CDSAP at least 30 days prior to the proposed date of change.

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**5.6     ESCDS Application Log**

- 5.6.1     A copy of the ESCDS Application Log and Paved Road Control Log shall be maintained on-site for the most recent five year period beginning two years prior to the issuance of Permit No. T2-040102.
- 5.6.2     Access to these records shall be made available to DEQ representatives upon request.

**5.7     Notification**

The permittee shall provide notice to the DEQ within 10 days of making the change, as described in Section 1.2 of this permit.

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## 6. SUMMARY OF EMISSION RATE AND THROUGHPUT LIMITS

Table 6.1 provides a summary of all emission rate limits required by this permit.

**Table 6.1 SUMMARY OF EMISSION RATE LIMITS**

Interstate Concrete and Asphalt Co., Sandpoint Emission Limits <sup>a</sup> – Hourly (lb/hr), and Annual <sup>b</sup> (T/yr)				
Source Description	PM		PM <sub>10</sub> <sup>c</sup>	
	lb/hr	T/yr	lb/hr	T/yr
<b>ASPHALT PLANT</b>				
Drum Dryer	5.8	2.0	2.3	0.81
Vehicle Fugitives (Paved and Unpaved)			0.71	30
Process Fugitives			0.26	0.58
<b>CONCRETE PLANT</b>				
Cement Silo Vents	0.08	0.04	0.08	0.04
Process Fugitives	3.07	2.51	0.63 <sup>d</sup>	1.1 <sup>d</sup>
Vehicle Fugitives (Paved and Unpaved)	3.32	1.45	0.89	0.34

<sup>a</sup> As determined by a pollutant-specific EPA reference method, a DEQ-approved alternative, or as determined by DEQ's emissions estimation methods used in this permit analysis.

<sup>b</sup> As determined by multiplying the actual or allowable (if actual is not available) pound per hour emission rate by the allowable hours per year that the process(es) may operate(s), or by actual annual production rates.

<sup>c</sup> Includes condensibles

<sup>d</sup> Includes point source emissions for the two minibaghouses placed on the cement weigh hoppers and the scavenge fan/baghouse system on the mixer loading operation installed as Conditional Control Measures.

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**Interstate Concrete and Asphalt****Table 6.2 MAXIMUM THROUGHPUT VALUES**

Interstate Concrete and Asphalt Company, Sandpoint				
Source Description	Material Handled	Hourly (T/hr)	Daily (T/day)	Annual (T/yr)
1. Asphalt Plant	Asphalt	200 <sup>a</sup>	2,400	140,000
2. Concrete Batch Plant Units of yd <sup>3</sup> /time period	Concrete	75	1,400	70,000
3. Retail Aggregate Sales-Concrete Plant (Truck Load by Front- End Loader and PG Hopper)	Aggregate		1,700	55,000

a) Operation at this production rate shall require a successful performance test against the PM emission limit, as required in 3.16 of the Asphalt Plant section of this permit.

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**7. PERMIT GENERAL PROVISIONS**

1. The permittee has a continuing duty to comply with all terms and conditions of this permit. All emissions authorized herein shall be consistent with the terms and conditions of this permit. The emission of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit and the *Rules for the Control of Air Pollution in Idaho*, and the Environmental Protection and Health Act, Idaho Code 39-101 et seq.
2. The permittee shall at all times (except as provided in the *Rules for the Control of Air Pollution in Idaho*) maintain and operate in good working order all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable laws for the control of air pollution.
3. The permittee shall allow the director, and/or his authorized representative(s), upon the presentation of credentials:
  - To enter upon the permittee's premises where an emissions source is located, or in which any records are required to be kept under the terms and conditions of this permit.
  - At reasonable times, to have access to and copy any records required to be kept under the terms and conditions of this permit, to inspect any monitoring methods required in this permit, and require stack compliance testing in conformance with IDAPA 58.01.01.157 when deemed appropriate by the Director.
4. Nothing in this permit is intended to relieve or exempt the permittee from compliance with any applicable federal, state, or local law or regulation, except as specifically provided herein.
5. In the event of any change in control or ownership of source(s) covered by this permit, the permittee and succeeding owner or controller shall notify the Director of the change in ownership. Any proposed change(s) or modification(s) to this permit by the succeeding owner or controller shall be requested in accordance with the *Rules for the Control of Air Pollution in Idaho*.
6. This permit shall be renewable on the expiration date, provided the permittee submits any and all information necessary for the director to determine the amount and type of air pollutants emitted from the equipment for which this permit is granted. Failure to submit such information within 60 days after receipt of the Director's request shall cause the permit to become void.
7. The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.